| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/648,908 | 08/25/2000 | Lester B. Shupe | 1720/USW1720PUS | 6969 |

| | | | EXAMINER |
|---|---|---|---|
| 20350 | 7590 | 03/30/2004 | D AGOSTA, STEPHEN M |

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DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *15 March 2004*.

2a)☐ This action is **FINAL.**     2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-29* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments, see amendment, filed 3-15-04, with respect to the rejection(s)of claim(s) 1-29 under USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Morin et al. US 6,584,312.

1. Firstly, the examiner <u>apologizes</u> for missing the newly added claims (26-29) in the RCE filed 11-19-03. A new Non-Final action is transmitted and addresses these claims.

2. The main argument has focused on the claim limitation regarding a profile update being sent to the MSC without it's prompting. Morin teaches the HLR contacting the MSC without prompting.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 1-2, 4-6, 8-11 and 18-24** rejected under 35 U.S.C. 103(a) as being unpatentable over Sonti in view of Morin et al. US 6,584,312 (hereafter Sonti and Morin).

As per **claims 1-2, 4-6, 8 and 23**, Sonti teaches a wireless communications system including a Service Location Register, Switching Center and a subscriber (figure 1) the subscriber having at least one profile associated with the subscriber (abstract and figures 2-4), a method of automatically updating the Switching Center with a change in the subscriber's profile comprising:

Receiving an update at a database regarding a change in the subscriber's profile

generating a request to the Service Location Register to send a profile update for the subscriber to a Switching Center (C8, L25-67, specifically L57-60 which states that the HLR sends any/all valid profile updates to the MSC without MSC intervention). **But is silent on** in response to the request and without any prompting by the MSC.

Morin teaches an HLR comparing services supported by an MSC to services desired by a user (eg. their service profile) and having the MSC provide an alternate service if a user-desired service is not available. The examiner notes that this is an "automatic function" and requires the MSC to perform service(s) based on an update it receives from an SLR (eg. HLR). The examiner therefore interprets this as reading on the silent portion above since a comparison is required and an event trigger occurs (eg. applicant's updates MSC while Morin has the MSC substitute a service) which provides for an automatic operation. While Morin's focus may not be used in the same way as the applicant, it none-the-less ends in a similar result – eg. the MSC does not prompt the HLR **and** the MSC is updated so as to provide a certain service to a certain user as per the HLR's direction. Hence one skilled would apply Morin's automatic service substitution to an automatic MSC service profile update to circumvent considerable data traffic between HLR and MSC to determe if the MSC needs to be updated.

Lastly the examiner includes, but does not cite, Franks (figure 3, C8, L35 to C9, L14) and Vuoristo (C7, L63 to C8, L43) as containing disclosures whereby the MSC is updated without its prompting.

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such that MSC prompting is not required, to provide automatic updates to an MSC(s) when an update occurs.

As per **claim 2**, Sonti in view of Morin teaches and HLR (C8, L57-60).

As per **claim 4**, Sonti in view of Morin teaches an MSC (C8, L57-60).

As per **claim 5**, Sonti in view of Morin teaches a wireless communication system including an HLR, MSC and a plurality of subscribers (figure 1) each of the subscribers having at least one profile associated with the subscriber, a method of automatically updating the MSC with a change in the subscriber profile, comprising

Receiving an update at a database regarding a change in the subscriber profile

Initiating a stored procedure in the database to generate a request to the HLR to send a Qualification Directive (QUALDIR) to the MSC the qualdir including an update to the subscriber profile,

Sending the QUALDIR message to the MSC. (C8, L25-67, specifically L57-60 which states that the HLR sends any/all valid profile updates to the MSC without MSC intervention AND figure 7 shows a QUALDIR message w/profile between the MSC and HLR) **But is silent on** in response to the request and without any prompting from the MSC.

Morin teaches an HLR comparing services supported by an MSC to services desired by a user (eg. their service profile) and having the MSC provide an alternate service if a user-desired service is not available. The examiner notes that this is an "automatic function" and requires the MSC to perform service(s) based on an update it receives from an SLR (eg. HLR). The examiner therefore interprets this as reading on the silent portion above since a comparison is required and an event trigger occurs (eg. applicant's updates MSC while Morin has the MSC substitute a service) which provides for an automatic operation. While Morin's focus may not be used in the same way as the applicant, it none-the-less ends in a similar result – eg. the <u>MSC does not prompt the HLR</u> **and** <u>the MSC is updated so as to provide a certain service to a certain user as per the HLR's direction</u>. Hence one skilled would apply Morin's automatic service substitution to an automatic MSC service profile update to circumvent considerable data traffic between HLR and MSC to determe if the MSC needs to be updated.

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti in view of Morin, such that MSC prompting is not required, to provide automatic updates to an MSC(s) when an update occurs.

As per **claim 6**, Sonti in view of Morin teaches a wireless system having at least one subscriber with at least one profile, (figure 1), a system for automatically updating the Switching Center with a change in the subscriber's profile, the system comprising;

A database configured to receive an update regarding a change in the subscriber's profile to generate a request to send a profile to the Switching Center

A SLR in communication with the database and being configured to:

Receive the request to send the profile update to the MSC (C8, L25-67, specifically L57-60).

**But is silent on** In response to the request and without receiving any prompting from the MSC, send the profile update to the MSC.

Morin teaches an HLR comparing services supported by an MSC to services desired by a user (eg. their service profile) and having the MSC provide an alternate service if a user-desired service is not available. The examiner notes that this is an "automatic function" and requires the MSC to perform service(s) based on an update it receives from an SLR (eg. HLR). The examiner therefore interprets this as reading on the silent portion above since a comparison is required and an event trigger occurs (eg. applicant's updates MSC while Morin has the MSC substitute a service) which provides for an automatic operation. While Morin's focus may not be used in the same way as the applicant, it none-the-less ends in a similar result – eg. the <u>MSC does not prompt the HLR</u> and <u>the MSC is updated so as to provide a certain service to a certain user as per the HLR's direction</u>. Hence one skilled would apply Morin's automatic service substitution to an automatic MSC service profile update to circumvent considerable data traffic between HLR and MSC to determe if the MSC needs to be updated.

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti in view of Morin, such that MSC prompting is not required, to provide automatic updates to an MSC(s) when an update occurs.


As per **claim 8**, Sonti in view of Morin teaches an MSC (C8, L57-60).

As per **claims 9, 11 and 20-22, 24**, Sonti in view of Morin teaches claim 6 **but is silent on** a Sybase database and a stored procedure.

The examiner interprets the MSC, HLR and/or VLR as hardware devices which contain database software to perform various functions and hence, the examiner takes *official notice* that commercially available database software used would include Sybase, Oracle, SQL Server, etc. as well as databases providing the ability to initiate stored procedures as programmed by the user.

As per **claims 10 and 18-19**, Sonti in view of Morin teaches claim 6 wherein the request
generated by the database is a qualification directive (figure 7 shows a QUALDIR message w/profile between the MSC and HLR).

**Claims 3 and 7** rejected under 35 U.S.C. 103(a) as being unpatentable over Sonti/Morin and further in view of Dougherty US 6,393,271 (hereafter Dougherty).

As per **claim 3**, Sonti in view of Morin teaches claim 1 and service registers **but is silent on** a WSLR.

Dougherty teaches a system/method for wireline-based registration of wireless device (title and abstract and figure 1, #24).

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti in view of Morin, such that a WSLR is used, so that a WSLR can be used instead of (or in place) of a generic Service Location Register.

As per **claim 7**, Sonti in view of Morin teaches claim 6 and service registers **but is silent on** a WSLR.

Dougherty teaches a system/method for wireline-based registration of wireless device (title and abstract and figure 1, #24).

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti in view of Morin, such that a WSLR is used, so that a WSLR can be used instead of (or in place) of a generic Service Location Register.

**Claims 12-14 and 25** rejected under 35 U.S.C. 103(a) as being unpatentable

over Sonti/Morin and further in view of Chang et al. US 5,958,016 (hereafter Chang).

As per **claims 12-14 and 25**, Sonti in view of Morin **is silent on** use of

Web/Internet.

Chang teaches use of Web/Internet to allow subscriber profile changes and for

subscriber access to billing, profiles, etc. (title, abstract, figures 1-2 and C2, L7-67 and

C4, L45-58 - The control data input by the subscribers may control services facilitated

through high level network control points. In an intelligent network implementation of a

telephone network, for example, the control data is used to establish or modify call

processing records stored in a service control point. The control data also may be used

to modify individual subscriber profiles in central office switching systems of the

telephone network.).

It would have been obvious to one skilled in the art at the time of the invention to

modify Sonti in view of Morin, such that Web/Internet access can be used, to provide

ubiquitous access to anyone wishing to view their account AND/OR for allowing

customer service to be remotely located from the MSC/HLR/Servers.


**Claims 15-17** rejected under 35 U.S.C. 103(a) as being unpatentable over

Sonti/Morin and further in view of Foti US 5,913,165 (hereafter Foti).

As per claims **15-17**, Sonti in view of Morin is silent on including at least one

feature set.

Foti teaches changing service feature(s) [title].

Morin teaches an HLR comparing services supported by an MSC to services

desired by a user (eg. their service profile) and having the MSC provide an alternate

service if a user-desired service is not available. The examiner notes that this is an

"automatic function" and requires the MSC to perform service(s) based on an update it

receives from an SLR (eg. HLR). The examiner therefore interprets this as reading on

the silent portion above since a comparison is required and an event trigger occurs (eg.

applicant's updates MSC while Morin has the MSC substitute a service) which provides for an automatic operation. While Morin's focus may not be used in the same way as the applicant, it none-the-less ends in a similar result – eg. the <u>MSC does not prompt the HLR</u> **and** <u>the MSC is updated so as to provide a certain service to a certain user as per the HLR's direction</u>. Hence one skilled would apply Morin's automatic service substitution to an automatic MSC service profile update to circumvent considerable data traffic between HLR and MSC to determe if the MSC needs to be updated.

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such that service features are included, to provide means for automatically updating MSC profiles and service features.

**Claims 26-29** rejected under 35 U.S.C. 103(a) as being unpatentable over Sonti in view of Morin and Cianfrocca et al. US 6,099796 (hereafter Cianfrocca).

As per **claims 26 and 28**, Sonti teaches a wireless communications system including a Service Location Register, Switching Center and a subscriber (figure 1) the subscriber having at least one profile associated with the subscriber (abstract and figures 2-4), a method of automatically updating the Switching Center with a change in the subscriber's profile comprising:

Receiving an update at a database regarding a change in the subscriber's profile

generating a request to the Service Location Register to send a profile update for the subscriber to a Switching Center (C8, L25-67, specifically L57-60 which states that the HLR sends any/all valid profile updates to the MSC without MSC intervention). **But is silent on** using a database client connection to update a database AND in response to the request and without any prompting by the MSC.

Morin teaches an HLR comparing services supported by an MSC to services desired by a user (eg. their service profile) and having the MSC provide an alternate service if a user-desired service is not available. The examiner notes that this is an "automatic function" and requires the MSC to perform service(s) based on an update it receives from an SLR (eg. HLR). The examiner therefore interprets this as reading on the silent portion above since a comparison is required and an event trigger occurs (eg.

applicant's updates MSC while Morin has the MSC substitute a service) which provides for an automatic operation. While Morin's focus may not be used in the same way as the applicant, it none-the-less ends in a similar result – eg. the <u>MSC does not prompt the HLR</u> and <u>the MSC is updated so as to provide a certain service to a certain user as per the HLR's direction</u>. Hence one skilled would apply Morin's automatic service substitution to an automatic MSC service profile update to circumvent considerable data traffic between HLR and MSC to determe if the MSC needs to be updated.

Lastly the examiner includes, but does not cite, Franks (figure 3, C8, L35 to C9, L14) and Vuoristo (C7, L63 to C8, L43) as containing disclosures whereby the MSC is updated without its prompting.

Cianfrocca teaches running a database engine on its own computer that may also be situated inside the DMZ and outside your firewall since many database engines accept <u>connections from database client</u>-programs on particular TCP ports that may or may not be configurable (figure 4 and C17, L19-67). The database server(s) would be able to receive database updates via said database client connection based on the way the system is designed in figure 4.

It would have been obvious to one skilled in the art at the time of the invention to modify Sonti, such a database client connection is used and that MSC prompting is not required, to provide database connectivity via commercial software over the Internet and automatic updates to an MSC(s) when an update occurs.

As per **claims 27 and 29**, Sonti in view of Morin and Cianfrocca teaches claim 26/28 **but is silent** on the database connection comprises a request initiated from an HTTP (web) client.

Cianfrocca teaches connecting the database server(s) to the Internet which are inherently accessible from a browser-based computer (eg. via Windows Explorer).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Sonti in view of Morin and Cianfrocca, such that the database connection comprises a request from a HTTP client, to provide means for any browser-based user to access the server(s)/MSC/SLRs no matter where they are located.

## *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1.  Franks US 6,611,684

2.  Vuoristo et al. US 6,603,969.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426.  The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318.  The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.  Status information for published applications may be obtained from either Private PAIR or Public PAIR.  Status information for unpublished applications is available through Private PAIR only.  For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SMD
3-25-04